

Space and Missile Defense Battle Lab

Delivering Innovations to the Warfighter

The Space and Missile Defense Battle Lab (SMDBL) is a split-based operation headquartered in Huntsville, Ala., with operations in both Huntsville and Colorado Springs, Colo. It delivers space and missile defense innovations to the warfighter.

The Battle Lab maintains expertise in the areas of:

- Space experimentation
- Missile Defense experimentation
- Computer Network Operations (CNO) experimentation
- Modeling and Simulations, and computational facilities
- Analysis

Space Experimentation (example):

The TACSPACE Initiative, demonstrated during Millennium Challenge 02, provides Space Operations officers a mobile platform equipped with the necessary toolset to bring space to the warfighting commander (includes SSET, SONET, SATURN, BRITE, SOS, ENTR). Other space experiments include: SATURN, LEOPARD, SBR in UoA CEP,

Missile Defense Experimentation (example):

The Future Operational Capability (FOC) is a state of the art advanced C4ISR Tactical Operations Center (TOC) that provides a reduced footprint (one HMMWV w/dash tent) for the theater commander's enhanced visibility, control and interoperability of Theater Air, Missile Defense. It has been demonstrated in ROVING SANDS and NORTHERN EDGE, and in 1st Air Force and Fleet Battle Experiments, etc. Other capabilities include: AWarE, Total Defender, ARCTIC, DBST, and GMD efforts.

Simulation:

The SMDBL leverages the growth and maturation of computer-based models and simulations, by expanding use of its space and missile defense models and simulations beyond the materiel development and analysis domain to provide sophisticated capabilities to the warfighter. The SMDBL Focus Area Collaborative Team (FACT) is the lead for ensuring Army space requirements are captured in current and future modeling and simulations. The Battle Lab operates two large computing centers to conduct supporting operations: the Advanced Research Center and the Simulation Center. Additionally, the Ground-based Midcourse Defense (GMD) User Lab, located in Colorado Springs, provides warfighters an independent environment and capability for the operator to train, exercise, and experiment with GMD systems prior to fielding. Its simulation capabilities also include Extended Air Defense Simulation and Israeli TestBed.

Studies and Analysis:

The Studies and Analysis program supports experimentation, materiel development activities and requirements determination. Also included are S&T reviews, assessment of advanced concepts, and analytical support to the definition of space and missile defense architectures for the future warfighter. Studies and Analysis have been conducted for SMDC, the Army, the Air Force, the Joint Staff, and the OSD.

The Army Space Exploitation Demonstration Program (ASEDP) leverages the commercial community's space technology advances to address warfighter needs. The Lightweight GPS Receiver (SLGR), used during OPERATION DESERT STORM, was a product of ASEDP. The objectives of the ASEDP are to:

- Educate commanders on the use of space-based assets to enhance Army operations.
- Assist in defining requirements for Army development.
- Demonstrate technology for further development.
- Influence design and use of future space systems.
- Provide rapid prototyping of contingency operations.

SMDBL's Products and Services:

- Experimentation Management
- Models and Simulations
- Applied Space, Missile Defense and Computer Network Operations Prototypes / Innovations
 - Military Utility Assessments
 - Operational Analyses
 - Exercise and Training Tools
 - Mission Essential Computer Resources
 - Threat Scenario Design
 - Command and Control Engineering

Experiments:

- Support DTLOMS requirement determination.
- Support materiel requirement development.
- Provide opportunities to streamline acquisition testing and evaluation.
- Provide insights to FOC solutions.

For more information, please contact:

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